



**Texas State Soil and Water Conservation Board  
 Clean Water Act §319(h) Nonpoint Source Grant Program  
 FY 2014 Workplan 14-05**

SUMMARY PAGE						
Title of Project	Implementation of the Leon River Watershed Protection Plan through Technical and Financial Assistance to Repair or Replace Failing On-Site Sewage Facilities in Comanche and Hamilton Counties					
Project Goals	1) Identify and inspect on-site sewage facilities (OSSFs); 2) Promote the availability of technical and financial assistance to homeowners; 3) Provide technical and financial assistance to homeowners for the repair, replacement, or removal of OSSFs; 4) Educate the homeowners on proper OSSF maintenance					
Project Tasks	(1) Project Administration; (2) Promotion of OSSF program; (3) Repair, Replace, or Remove OSSFs					
Measures of Success	1) Locations of OSSFs identified and inspected in Comanche and Hamilton Counties; 2) Number of failing OSSFs repaired or replaced; 3) Nitrogen, phosphorus, sediment, and bacteria load reductions achieved; 4) Availability of technical and financial assistance is promoted through the distribution of appropriate publications; 5) Needed technical assistance is provided to homeowners for the repair, replacement, or removal of OSSFs; 6) Cost share provided to homeowners in Comanche and Hamilton Counties; 7) Increased public knowledge on the proper maintenance of OSSFs					
Project Type	Implementation (X); Education (X); Planning ( ); Assessment ( ); Groundwater ( )					
Status of Waterbody on 2012 Texas Integrated Report	<u>Segment ID</u> 1221 – Leon River below Proctor Lake			<u>Parameter</u> Bacteria		<u>Category</u> 5b
Project Location (Statewide or Watershed and County)	The Leon River Watershed					
Key Project Activities	Hire Staff ( ); Surface Water Quality Monitoring ( ); Technical Assistance (X); Education (X); Implementation (X); BMP Effectiveness Monitoring ( ); Demonstration ( ); Planning ( ); Modeling ( ); Bacterial Source Tracking ( ); Other ( )					
Texas NPS Management Program Reference	Component One LTG Objectives 1, 2, 3, 5, 6, 7 Component One STGs 2B, 2C, 2D, 3A, 3B, 3D, 3F Component Three and Four					
Project Costs	Federal	\$358,559	Non-Federal	\$84,512	Total	\$443,071
Project Management	Hamilton County					
Project Period	October 1, 2014 – September 30, 2017					

## Part I – Applicant Information

Applicant							
Project Lead		Dickie Clary					
Title		Hamilton County Commissioner, Precinct 4					
Organization		Hamilton County					
E-mail Address		<a href="mailto:Dickie.clary@co.hamilton.tx.us">Dickie.clary@co.hamilton.tx.us</a>					
Street Address		102 North Rice					
City	Hamilton	County	Hamilton	State	TX	Zip Code	76531
Telephone Number		254-372-3339			Fax Number		

Project Partners	
Names	Roles & Responsibilities
Texas State Soil and Water Conservation Board (TSSWCB)	Provide state oversight and management of all project activities and ensure coordination of activities with related projects and TCEQ.
Hamilton County	Project coordination and administration; identify locations and inspect OSSFs, work with landowners to repair, replace or remove OSSFs; assist with education and outreach.
Texas A&M Institute of Renewable Resources/Texas Water Resources Institute (IRNR-TWRI)	Watershed coordinator will aid in the organization and delivery of all educational programs associated with the OSSF program. Program will be highlighted in all watershed efforts including website, social media platforms and other watershed workshops.
Comanche County	Project Partner that coordinates with Hamilton County on identifying locations and inspecting OSSFs; working with landowners to repair, replace or remove OSSFs; providing support with education and outreach.

## Part II – Project Information

Project Type						
Surface Water	X	Groundwater				
Does the project implement recommendations made in (a) a completed WPP, (b) an adopted TMDL, (c) an approved I-Plan, (d) a Comprehensive Conservation and Management Plan developed under CWA §320, (e) the <i>Texas Coastal NPS Pollution Control Program</i> , or (f) the <i>Texas Groundwater Protection Strategy</i> ?				Yes	X	No
If yes, identify the document.		Watershed Protection Plan for the Leon River Below Proctor Lake and Above Belton Lake				
If yes, identify the agency/group that developed and/or approved the document.		Brazos River Authority		Year Developed	2011	

Watershed Information				
Watershed or Aquifer Name(s)	Hydrologic Unit Code (12 Digit)	Segment ID	Category on 2012 IR	Size (Acres)
Leon River Watershed below Proctor Lake and above Belton Lake	120702010501 –			871,488
	120702010509,			
	120702010601 –	1221	5b	
	120702010605,	1221A	5b	
	120702010701 –	1221B	5b	
	120702010705,	1221C	2	
	120702010801 –	1221D	5b	
	120702010806,	1221E	3	
	120702010901 –	1221F	5b	
	120702010908,			
	120702011002			

## Water Quality Impairment

Describe all known causes (i.e., pollutants of concern) and sources (e.g., agricultural, silvicultural) of water quality impairments or concerns from any of the following sources: *2012 Texas Integrated Report*, Clean Rivers Program Basin Summary/Highlights Reports, or other documented sources.

### *2012 Texas Integrated Report*

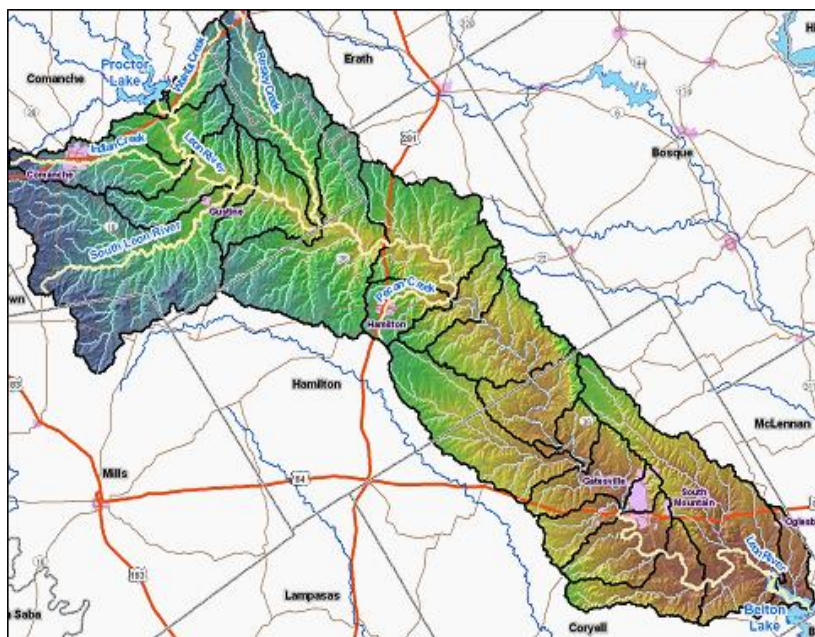
		<u>Impairment</u>	<u>Category</u>	<u>Year Listed</u>
<b>Segment 1221: Leon River:</b>				
1221_01	From the confluence w/ Lake Belton upstream to confluence w/ unnamed tributary in Coryell County	bacteria	5b	1996
1221_03	From the confluence w/ Stillhouse Creek, upstream to confluence w/ Plum Creek	bacteria	5b	1996
1221_04	From the confluence with Plum Creek, upstream to the confluence with Pecan Creek			
1221_05	From confluence with Pecan Creek, upstream to confluence w/ South Leon Creek	bacteria	5b	1996
1221_06	From confluence with South Leon Creek upstream to confluence w/ Walnut Creek	bacteria	5b	1996
<b>Segment 1221A: Resley Creek:</b>				
1221A_01	From confluence of Leon River upstream to unnamed tributary approx. 1 mi. N of Comanche Co. Line	bacteria	5b	2004
		dissolved oxygen	5b	2006
1221A_02	From confluence of unnamed tributary upstream to upper end of water body; approx. 1.0 miles NW of Dublin	bacteria	5b	2004
<b>Segment 1221B: South Leon River:</b>				
1221B_01	Entire water body	bacteria	5b	2006
<b>Segment 1221D: Indian Creek:</b>				
1221D_01	From confluence with Leon River upstream to Armstrong Creek	bacteria	5b	2006
1221D_02	From confluence with Armstrong Creek upstream to headwaters of water body	bacteria	5b	2006
<b>Segment 1221F: Walnut Creek:</b>				
1221F_01	Entire water body	bacteria	5b	2006

## Project Narrative

### Problem/Need Statement

The Leon River watershed, located in the Brazos River Basin, is bound by Proctor Lake upstream and Belton Lake downstream. The Leon River (Segment 1221) is approximately 190 miles long and the watershed is approximately 1,375 square miles covering portions of Comanche, Bell, Erath, Hamilton, and Coryell Counties. A small portion of the watershed lies within Mills County. The Leon River watershed is a predominantly rural, agricultural watershed dominated by rangeland with some cropland. Forests also cover a sizable amount of the watershed. A significant amount of dairy production also exists in the northern portion of the watershed.

In 1996, Segment 1221 was placed on the Texas *303(d) List* of impaired waters for bacteria levels “Not Supporting Contact Recreation Use”. The 2008 *303(d) List* identified all but two of the segment’s assessment units as impaired or having a concern for near non-attainment resulting from elevated *E. coli* levels. Additionally, four tributaries of the Leon River are impaired for bacteria (1221A – Resley Creek, 1221B – South Leon River, 1221C – Indian Creek, and 1221F – Walnut Creek); 1221C Pecan Creek was recently delisted on the 2010 Integrated Report as it now meets the water quality standard for bacteria.



Placement of the Leon River on the §303(d) List caused the Texas Commission on Environmental Quality (TCEQ) to initiate the development of a total maximum daily load (TMDL). A draft TMDL was published by TCEQ in 2008 that indicated a 21% load reduction in bacteria levels would be needed to restore water quality in the Leon River. Sources of bacterial pollution identified in the Leon River watershed included as wastewater treatment facility discharges, storm water runoff, failing OSSFs, wildlife and feral animals, as well as fecal deposition from livestock and pets.

In the midst of the TMDL development process, stakeholders sought to initiate the development of a WPP for the Leon River. Through TSSWCB project 06-12, *Leon River Watershed*

*Protection Plan Project*, the WPP for the Leon River Below Proctor Lake and Above Belton Lake was completed in fall 2011. Sources of pollutants identified in the Leon River WPP include wastewater treatment facilities, on-site sewage facilities (OSSFs), sanitary sewer overflows, direct deposition from feral hogs, deer, and dead animals, and polluted storm water wash off from forestland, rangeland, cropland, residential commercial and industrial areas, and waste application fields.

The WPP identified responsible parties, implementation milestones and estimated financial costs for individual management measures and outreach and education activities. The plan also described the load reductions expected from the full implementation of all management measures. Measures that are in the process of being implemented that focus on control of agricultural nonpoint source pollution include: 1) providing technical assistance to agricultural producers for the development and implementation of Water Quality Management Plans (WQMPs) that focus on reducing bacteria loading from livestock operations; 2) financial incentives to agricultural producers for implementing best management practices prescribed in the WQMPs which will achieve bacteria load reductions; and, 3) allocation of the Environmental Quality Incentives Program by the USDA Natural Resources Conservation Service (NRCS). Funding

for the development and implementation of conservation plans was provided during FY2009-2013 through the USDA NRCS Agricultural Water Enhancement Program project entitled *Water Quality Improvement Project for the Leon River*.

Management measures to reduce impacts from invasive species that have been implemented in the watershed include aerial control of feral hogs in Coryell County through the use of County funds. TSSWCB has also funded a feral hog extension position currently stationed in Gatesville, TX. The feral hog extension assistant is responsible for feral hog education in the Leon River Watershed and surrounding areas. Measures that focus on pollution impacts from wastewater that have been implemented include: 1) wastewater treatment facility improvements by the Cities of Comanche and Hamilton as well as the Upper Leon River Municipal Water District; 2) identify and inspect on-site sewage facilities (OSSFs) in Hamilton County; and 3) provide technical and financial assistance to homeowners for the repair, replacement, or removal of OSSFs in Hamilton County. Funding for OSSF inspection and technical and financial assistance (2 and 3 above) has been provided through TSSWCB project 10-10, *Implementation of the Leon River Watershed Protection Plan through Technical and Financial Assistance to Repair or Replace On-Site Sewage Facilities in Hamilton County*.

The OSSF program in Hamilton County has been a huge success. Hamilton County set a minimum goal of replacing or repairing 20 OSSFs in the county, and as of the end of September 2013, 40 OSSFs have been either been repaired or replaced. However, the other counties encompassing the Leon River watershed, including Comanche County, have been identified as needing OSSFs to be repaired and/or replaced. Comanche and Hamilton Counties have hence signed an agreement for the Hamilton County Environmental Inspector to work across county lines in Comanche County further assisting in identifying and inspecting OSSFs, as well as providing financial assistance for repair or replacement..

## Project Narrative

### General Project Description (Include Project Location Map)

TSSWCB will administer CWA 319(h) funds through Hamilton County for support of an Environmental Inspector who will provide technical assistance to homeowners in evaluating and ensuring proper maintenance of OSSFs in Comanche and Hamilton Counties. The Environmental Inspector will identify and inspect malfunctioning OSSFs in both counties. Owners with malfunctioning systems will be assisted in acquiring cost share assistance for the repair, replacement, (including proper abandonment of the existing system if needed), or removal of OSSFs.

The Environmental Inspector will identify homeowners in Comanche and Hamilton Counties with OSSFs and develop a database of their locations. The Environmental Inspector has already developed a cost share application which will continue to be used when signing up participants. A project ranking system will be used including factors such as proximity to waterways, OSSF location, technology type, functionality, development density, soil type, land surface elevation, system age, floodplain elevation, depth to groundwater, and compliance history.

The Environmental Inspector will conduct inspections of OSSFs in Comanche and Hamilton Counties. During each inspection, the OSSF location will be geo-located. Malfunctioning OSSFs will be recommended for the Comanche and Hamilton Counties OSSF Program and will be ranked according to the above mentioned system. When needed, the Environmental Inspector will assist homeowners in leveraging all available financial assistance for OSSF repair, replacement, or removal beyond the scope of this project, such as TCEQ Supplemental Environmental Project monies through the Leon-Bosque RC&D or the Economically Distressed Areas Program (EDAP) and Clean Water State Revolving Fund (CW-SRF) through the Texas Water Development Board.

Tasks, Objectives and Schedules						
Task 1	Project Administration					
Costs	Federal	\$35,856	Non-Federal	\$36,340	Total	\$72,196
Objective	To effectively administer, coordinate and monitor all work performed under this project including technical and financial supervision and preparation of status reports.					
Subtask 1.1	Hamilton County will prepare electronic quarterly progress reports (QPRs) for submission to the TSSWCB. QPRs shall document all activities performed within a quarter and shall be submitted by the 15 <sup>th</sup> of January, April, July and October. QPRs shall be distributed to all Project Partners.					
	Start Date	Month 1		Completion Date	Month 36	
Subtask 1.2	Hamilton County will perform accounting functions for project funds and will submit appropriate Reimbursement Forms to TSSWCB at least quarterly.					
	Start Date	Month 1		Completion Date	Month 36	
Subtask 1.3	Hamilton County will host coordination meetings or conference calls, at least quarterly, with Project Partners to discuss project activities, project schedule, communication needs, deliverables, and other requirements. Hamilton County will develop lists of action items needed following each project coordination meeting and distribute to project personnel.					
	Start Date	Month 1		Completion Date	Month 36	
Subtask 1.4	Hamilton County will attend and participate in the Leon River Watershed Steering Committee, Focus Groups, Technical Advisory Group meetings, City Councils, and County Commissioners Courts in order to communicate project goals, activities, and accomplishments to affected parties.					
	Start Date	Month 1		Completion Date	Month 36	
Subtask 1.5	Hamilton County will host and maintain a webpage for the dissemination of project information ( <a href="http://www.hamiltoncountytexas.org">http://www.hamiltoncountytexas.org</a> ). Webpage shall include information on the OSSF Program, educational materials, and project deliverables.					
	Start Date	Month 1		Completion Date	Month 36	
Subtask 1.6	Hamilton County will develop a Final Report that summarizes activities completed and conclusions reached during the project and discuss the extent to which project goals and measures of success have been achieved.					
	Start Date	Month 34		Completion Date	Month 36	
Deliverables	<ul style="list-style-type: none"><li>• QPRs in electronic format</li><li>• Reimbursement Forms and necessary documentation in hard copy format</li><li>• Lists of action items needed from project coordination meetings</li><li>• Project website</li><li>• Final Report in electronic and hard copy formats</li></ul>					

Tasks, Objectives and Schedules						
Task 2	Promotion of Comanche and Hamilton Counties OSSF Program					
Costs	Federal	\$53,784	Non-Federal	\$16,057	Total	\$69,841
Objective	To promote the Comanche and Hamilton Counties OSSF Program and the availability of technical and financial assistance. To encourage participation in the Comanche and Hamilton Counties OSSF Program by homeowners in the Leon River watershed.					
Subtask 2.1	The Environmental Inspector will identify homeowners in Comanche and Hamilton Counties with OSSFs to distribute notifications announcing the availability of technical and financial assistance for the repair, replacement, or removal of OSSFs. The list of homeowners will be based on existing County records and updated accordingly.					
	Start Date	Month 1		Completion Date	Month 36	
Subtask 2.2	The Environmental Inspector will develop and distribute flyers, brochures, letters, news releases, and other appropriate promotional publications to encourage homeowner participation in the Comanche and Hamilton Counties OSSF Program. The TSSWCB must approve all announcements, letters, and publications prior to distribution.					
	Start Date	Month 1		Completion Date	Month 36	
Subtask 2.3	The Environmental Inspector will work with the Leon River Watershed Coordinator and AgriLife Extension Service to educate homeowners about water quality issues and how proper OSSF maintenance can abate pollutant loadings. The Environmental Inspector will support, promote, and participate in, as appropriate, any field days, demonstrations, or education events.					
	Start Date	Month 1		Completion Date	Month 36	
Subtask 2.4	The Environmental Inspector will continue to use the existing project ranking system to prioritize cost share applications. This project ranking system includes factors such as proximity to waterways, OSSF location, technology type, functionality, development density, soil type, land surface elevation, system age, floodplain elevation, depth to groundwater, and compliance history.					
	Start Date	Month 1		Completion Date	Month 36	
Deliverables	<ul style="list-style-type: none"><li>• Promotional publications, as developed and distributed</li><li>• Project ranking system</li></ul>					



Tasks, Objectives and Schedules						
Task 3	Repair, Replacement, or Removal of OSSFs					
Costs	Federal	\$268,919	Non-Federal	\$32,115	Total	\$301,034
Objective	To inspect OSSFs in Comanche and Hamilton Counties and provide technical assistance to homeowners for the repair, replacement, or removal of failing or non-compliant OSSFs. To provide financial assistance to support the repair, replacement, or removal of OSSFs in order to achieve OSSF load reductions.					
Subtask 3.1	The Environmental Inspector will conduct inspections on OSSFs identified in Subtask 2.1. The Environmental Inspector will document any follow-up technical assistance needed. The Environmental Inspector will conduct annual inspections on all OSSFs repaired or replaced through this project to ensure that homeowners are maintaining their OSSFs.					
	Start Date	Month 1		Start Date	Month 36	
Subtask 3.2	Each OSSF shall be geo-referenced (i.e. coordinated from a GPS receiver). The Environmental Inspector will create a spreadsheet and map describing and showing the location of all OSSFs inspected and enrolled in the Comanche and Hamilton Counties OSSF Program. The map will not reveal the identity or exact location of any homeowner.					
	Start Date	Month 1		Start Date	Month 36	
Subtask 3.3	The Environmental Inspector will assist homeowners in Comanche and Hamilton Counties in applying for and obtaining financial incentives to aid in the repair, replacement (including proper abandonment of the existing system if needed), or removal of OSSFs. The project provides \$150,000 in CWA 319(h) funding from TSSWCB project 14-05, as well as remaining Construction dollars from TSSWCB Project 10-10, as financial incentives assistance. Homeowners shall be eligible to receive financial incentives based on a fair and reasonable rate to replace an OSSF, which will be determined by the Environmental Inspector.					
	Start Date	Month 1		Start Date	Month 36	
Subtask 3.4	The Environmental Inspector will prioritize applications for the Comanche and Hamilton Counties OSSF Program based on the system developed under subtask 2.4.					
	Start Date	Month 1		Start Date	Month 36	
Subtask 3.5	The Environmental Inspector will assist homeowners in leveraging all available financial assistance for OSSF repair, replacement, or removal beyond the scope of this work, such as TCEQ Supplemental Environmental Project monies through the Leon-Bosque RC&D or the Economically Distressed Areas Program (EDAP) and Clean Water State Revolving Fund (CW-SRF) through the Texas Water Development Board.					
	Start Date	Month 1		Start Date	Month 36	
Subtask 3.6	The Environmental Inspector will track utilization of obligated cost share funds from TSSWCB Projects 10-10 and 14-05 and assist homeowners in utilizing these obligated financial incentives funds on schedule.					
	Start Date	Month 1		Completion Date	Month 36	
Deliverables	<ul style="list-style-type: none"><li>• Annual inspections for properties enrolled in the OSSF Program</li><li>• Map of project area showing locations of OSSFs inspected and enrolled in the OSSF Program; map will not reveal the identity of any homeowner.</li><li>• Cost share applications for homeowners in the OSSF Program</li></ul>					

**Project Goals (Expand from Summary Page)**

1) Identify and inspect OSSFs; 2) To promote the availability of technical and financial assistance to homeowners; 3) To provide technical and financial assistance to homeowners for the repair, replacement, or removal of OSSFs; 4) Educate the homeowners on the proper OSSF maintenance

**Measures of Success (Expand from Summary Page)**

1) Locations of OSSFs identified and inspected in Comanche and Hamilton Counties; 2) Number of failing OSSFs repaired or replaced; 3) Nitrogen, phosphorus, sediment and bacteria load reductions; 3) Availability of technical and financial assistance is promoted through the distribution of appropriate publications; 4) Needed technical assistance is provided to homeowners for the repair, replacement, or removal of OSSFs 5) Provide cost share to homeowners in Hamilton County 6) Increase public knowledge on the proper maintenance of OSSFs.

## 2012 Texas Nonpoint Source Management Program Reference (Expand from NPS Summary Page)

**Goals and/or Milestone(s)**

Component One – Explicit short- and long-term goals, objectives and strategies that protect surface...water

LTG: To protect and restore water quality from NPS pollution through assessment, implementation and education  
Objectives

- 1 – Focus NPS abatement efforts ... and available resources in watersheds identified as impacted by NPS pollution.
- 2 – Support the implementation of state, regional, and local programs to prevent NPS pollution through assessment ... and education.
- 3 – Support the implementation of state, regional, and local programs to reduce NPS pollution, such as the implementation of strategies defined in state-approved TMDL Implementation Plans and Watershed Protection Plans
- 6 – Develop partnerships, relationships, memoranda of agreement, and other instruments of facilitate collective, cooperative approaches to manage NPS pollution.
- 7 – Increase overall public awareness of NPS issues and prevention activities.
- 8 – Enhance public participation and outreach by providing forums for citizens and industry to contribute their ideas and concerns about the water quality management process.

Goal Two – Implementation: Coordinate and administer the implementation of TMDL Implementation Plans and/or Watershed Protection Plans and other state, regional, and local plans/programs to reduce NPS pollution. Manage all CWA§319 grant funds efficiently and effectively to target implementation activities to the areas identified as impacted, or potentially degraded with respect to use by NPS pollution.

- Objective B – Develop and implement BMPs to address constituents of concern or water bodies not meeting water quality standards in watersheds identified as impacted by NPS pollution.
- Objective C – Develop and implement BMPs to address NPS constituents of concern or water bodies not meeting water quality standards in aquifers identified with impacts or as vulnerable in the latest state approved *Texas Water Quality Inventory and 303(d) List* or in Chapter 5 of this document.
- Objective D – Implement state-approved TMDL Implementation Plans and Watershed Protection Plans developed to restore and maintain water quality in water bodies identified as impacted by nonpoint source pollution

Goal Three – Education: Conduct education and technology transfer activities to help increase awareness of NPS pollution and prevention activities contributing to the degradation of water bodies, ... , by NPS.

- Objectives A – Enhance existing outreach programs at the state, regional, and local levels to maximize the effectiveness of NPS education.
- Objectives B – Administer programs to educate citizens about water quality and their potential role in causing NPS pollution.
- Objectives D – Conduct outreach through the Clean Rivers Program, AgriLife Extension, Soil and Water Conservation Districts, and others to facilitate broader participation in decision-making and provide a more complete understanding of water quality issues and how they relate to each citizen.
- Implement outreach activities identified in the *Texas Groundwater Protection Strategy* to prevent NPS impacts to groundwater.
- Objectives G – Implement public outreach and education to maintain and restore water quality in waterbodies impacted by NPS pollution.

Component 3 – Balanced approach that emphasizes both state-wide nonpoint source programs and on-the-ground management of individual watersheds

Component 4 – Abatement of water quality impairments from nonpoint source pollution and prevention of significant threats to water quality from present and future nonpoint source activities

### Estimated Load Reductions Expected (Only applicable to implementation projects)

An OSSF accepts the wastewater generated in a facility, treats the wastewater by removal of specific contaminants of concern and returns the water to the hydrologic cycle. Residential wastewater has an estimated loading of contaminants based on each person and their water usage on a daily basis (Table 1). A functioning OSSF should reduce the contaminant loading to the receiving environment based on the level of treatment provided within the system. A malfunctioning OSSF will have a reduced ability to remove contaminants from the wastewater.

Table 3-7. Constituent mass loadings and concentrations in typical raw residential wastewater [*Onsite Wastewater Treatment Systems Manual* (EPA/625/R-00/008; February 2002)]

Constituent	Mass loading (grams/person/day)	Concentration <sup>a</sup> (mg/L)
Total suspended solids (TSS)	35-75	155-330
Total nitrogen (TN)	6-17	26-75
Total phosphorus (TP)	1-2	6-12
Fecal coliforms (FC) <sup>b</sup>	-	10 <sup>6</sup> -10 <sup>8</sup>

<sup>a</sup> concentration estimated based on a water use of 60 gallons per person per day.

<sup>b</sup> concentration presented in Most Probable Number of organisms per 100 milliliters.

The projected nitrogen load reduction is estimated for system replacement and systems receiving operation and maintenance activities resulting from greater awareness. Annual nitrogen loading to an OSSF is estimated at 44 lbs. The replaced systems results in a 50% reduction in nitrogen loading. The fecal coliform loading to the watershed will be reduced by  $5.6 \times 10^8$  per system per year (Cogger and Carlile, 1984).

Effectiveness of particular BMPs in reducing pollutants is dependent on a myriad of factors including natural weather phenomena and the ability of landowners to correctly install, operate, maintain or manage the BMP. With these factors in mind, the estimated load reductions to be expected, as presented above, should be regarded as the “best case scenario” with probability that actual reductions will be less.

The mechanism for reporting pollutant load reductions achieved through implementation of BMPs funded with CWA §319(h) monies, is through the EPA Grants Reporting and Tracking System (GRTS). Actual load reductions achieved can only be reported after the BMPs are installed and operational. Currently, EPA Program Activity Measures (PAMs) only call for load reductions achieved for nitrogen, phosphorus, and sediment. Nitrogen, phosphorus, and sediment load reductions achieved through this project will be reported through GRTS.

### EPA State Categorical Program Grants – Workplan Essential Elements

#### FY 2011-2015 EPA Strategic Plan Reference

Strategic Plan Goal – Goal 2 Protecting America’s Waters

Strategic Plan Objective – Objective 2.2 Protect and Restore Watersheds and Aquatic Ecosystems

## Part III – Financial Information

### Budget Summary

Federal	\$	358,559	% of total project	81%
Non-Federal	\$	84,512	% of total project	19%
Total	\$	443,071	Total	100%
Category		Federal	Non-Federal	Total
Personnel	\$	95,250	\$ 43,169	\$ 138,419
Fringe Benefits	\$	14,856	\$ 16,908	\$ 31,764
Travel	\$	0	\$ 4,500	\$ 4,500
Equipment	\$	0	\$ 15,000	\$ 15,000
Supplies	\$	960	\$ 135	\$ 1,095
Contractual	\$	0	\$ 0	\$ 0
Construction	\$	177,214	\$ 0	\$ 177,214
Other	\$	23,510	\$ 4,800	\$ 28,310
Total Direct Costs	\$	311,790	\$ 84,512	\$ 396,302
Indirect Costs ( $\leq 15\%$ )	\$	46,769	\$ 0	\$ 46,769
Total Project Costs	\$	358,559	\$ 84,512	\$ 443,071

Budget Justification (Federal)		
Category	Total Amount	Justification
Personnel	\$ 95,250	Environmental Inspector @ 100% effort for three years (3-5% increase per year factored in to total)
Fringe Benefits	\$ 14,856	16.36%
Travel	\$ 0	N/A
Equipment	\$ 0	N/A
Supplies	\$ 960	General Office Supplies: \$12/month = \$432, Postage for Mailings: \$528
Contractual*	\$ 0	N/A
Construction	\$ 177,214	Financial assistance for replacement/repair (includes proper abandonment)/ removal of at least 20 OSSFs
Other	\$ 23,510	Office rent and Utilities (\$500/month = \$18,000); Office Phone and Internet (\$150/month = \$5,400); Fuel and vehicle maintenance = \$110)
Indirect	\$ 46,769	15% of Total direct federal

Budget Justification (Non-Federal)		
Category	Total Amount	Justification
Personnel (3% increase per year factored in to total)	\$ 43,169	County Commissioner @ 20% for three years (\$22,070) County Clerk @ 5% for three years (\$5,525) County Extension Agent @ 5% for three years (\$2,050) County Office Assistant @ 2.5% for three years (\$2,086) County Treasurer @ 5% for three years (\$5,525) County Auditor @ 5% for three years (\$5,913)
Fringe Benefits (prorated at 20.71% with \$575 per month for health insurance)	\$ 16,908	County Commissioner @ 20% for three years (\$8,711) County Clerk @ 5% for three years (\$2,182) County Extension Agent @ 5% for three years (\$619) County Office Assistant @ 2.5% for three years (\$951) County Treasurer @ 5% for three years (\$2,182) County Auditor @ 5% for three years (\$2,263)
Travel	\$ 4,500	County Commissioner – 2,679 miles/year @ \$0.56 per mile for three years (\$4,500)
Equipment	\$ 15,000	County Truck for Environmental Inspector (\$5,000 per year for three years)
Supplies	\$ 135	Office Supplies
Contractual	\$ 0	N/A
Construction	\$ 0	N/A
Other	\$ 4,800	Meeting Space – 4 educational meetings (e.g. TWON, OSSF homeowner trainings) @\$100/meeting per year for three years (\$1,200) Mobile phone for \$100/mo for 3 years (\$3,600)
Indirect	\$ 0	N/A